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# Connecting People to Their Public Lands 2018

An Update on BLM Education, Interpretation, Volunteer, and Youth Employment Activities



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**The Bureau of Land Management's mission is to sustain the health, diversity, and productivity of America's public lands for the use and enjoyment of present and future generations.**

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# GREETINGS FROM THE ASSISTANT DIRECTOR



In these pages, you will see how Bureau of Land Management (BLM) employees continued to expand excellent community partnerships via education, interpretation, partnerships, stewardship, volunteers, and youth programs throughout 2017.

These programs are integral to effective resource management and the BLM's commitment to shared conservation stewardship. The work engages individuals and partners eager to assist the BLM with complex multiple-use issues on public lands. It educates and employs young people in the BLM's resource programs, shaping the next generation of public land management stewards and leaders. Each program represents opportunities for Americans to access public lands and waters for enjoyment, education, and service experiences.

The BLM offers programs that draw young students, lifelong learners, and curious visitors to the public lands. This report highlights only a small number of the BLM's youth and adult programs; however, the programs featured represent the broad scope of the BLM's reach, including the superb programs offered at Hands on the Land outdoor classrooms and Teachers on the Public Lands sites nationwide. Hands-on field experiences help young adult interns expand their skills and explore possible future careers. In addition, thousands of children and families enjoy the outdoors while participating in BLM interpretive programs and self-guided activities. And we are fortunate to have more than 28,000 volunteers contributing their time and energy to the public lands they value so much.

Many of the initiatives described in this update attest to the importance of partnerships in our work. As a prime example, through partnerships with youth corps, universities, and other organizations, the BLM has been successful in employing young people in all of our resource programs. In 2017 alone, more than 3,100 young people and veterans participated in work and training opportunities through partner organizations.

My sincere thanks go to the BLM staff, volunteers, and partners who earn national respect for BLM's education, interpretation, and youth engagement programs. We know the health and productivity of the public lands depend on informed citizens willing to assist us in conserving America's natural and cultural legacy. We look forward to our continued work together, cultivating a commitment to shared stewardship and reaching more and increasingly diverse audiences.

Christopher J. McAlear  
Assistant Director,  
National Conservation Lands  
and Community Partnerships



# NATIONAL SUMMARY

The Bureau of Land Management's (BLM's) Division of Education, Interpretation, and Partnerships helps Americans of all ages understand, appreciate, and care for their public lands. Through local partnerships and the BLM's programs, students **LEARN** about America's cultural and natural resources, volunteers **SERVE** and bring stewardship to life, youth and veterans **WORK** and discover career opportunities, and families **ENJOY** public lands and build memories through recreation. These programs result in a growing appreciation for public lands and a better understanding of land management challenges.

## LEARN

### Education

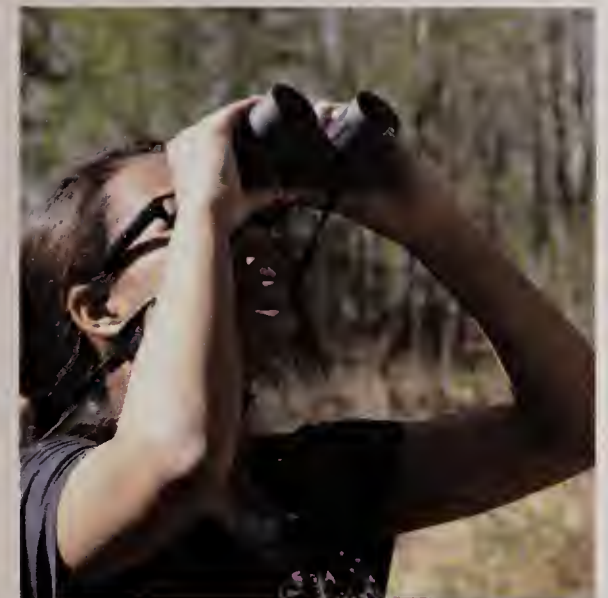
Education and youth programs empower BLM employees to engage with and support their local communities—in short, to be good neighbors. Young people have access to recreational activities, spend time with friends and family, nurture their curiosity about the natural world, discover clues to our country's past, and participate in shared conservation stewardship on millions of acres of BLM-managed public lands.

More than 552,000 youths and their families engaged in hundreds of organized recreational and service programs during fiscal year (FY) 2017. Programs included custom-designed summer camps, family hikes and bike rides, children's fishing events, and stewardship projects tied to larger events such as National Trails Day and National Public Lands Day. BLM offices also offered special events and programs for fourth grade students and their families through the **Every Kid in a Park** program, which aims to connect every child in America with their public lands and parks.



## BLM Engagement Programs and Participants

State Office	Number of Programs	Number of Participants
Alaska	263	15,106
Arizona	129	7,796
California	187	16,194
Colorado	158	13,386
Eastern States	93	15,734
Idaho	485	93,188
Montana/Dakotas	217	8,722
Nevada	1,785	102,287
New Mexico/Oklahoma/Texas/Kansas	38	3,084
Oregon/Washington	2,367	166,323
Utah	4,510	104,939
Wyoming	100	6,055
<b>Total</b>	<b>10,332</b>	<b>552,814</b>



In 2017, more than 235,000 students participated in a formal BLM education program, many of them at one of the BLM's **Hands on the Land** (HOL) sites. HOL is a national interagency network of field classrooms that connects students, teachers, and volunteers to public lands in their local communities. The BLM's HOL coordinators work with schools and community partners to create hands-on experiences using local, natural, historical, and archaeological settings as outdoor classrooms. Students form strong connections to the natural environment and learn about the BLM's multiple-use mission and resource careers.

## BLM Educational Programs

State Office	Number of Programs	Number of Participants
Alaska	871	19,775
Arizona	109	6,742
California	741	10,945
Colorado	233	8,851
Eastern States	373	5,794
Idaho	619	35,849
Montana/Dakotas	648	15,954
Nevada	1,102	44,460
New Mexico/Oklahoma/Texas/Kansas	17	1,942
Oregon/Washington	2,423	55,291
Utah	2,354	20,600
Wyoming	219	8,865
<b>Total</b>	<b>9,709</b>	<b>235,068</b>





The BLM continued its partnership with the University of Colorado Denver to host 18 teacher “interns” through the **Teachers on the Public Lands** program. These teachers spent their summer breaks working with local BLM staffs as they engaged in education projects, studied the BLM’s multiple-use approach to resource management, and developed educational programs for use in their classrooms and by BLM employees and volunteers. After participating in a 160-hour field experience, teachers were eligible for college credit from the partnering university. The teacher–staff partnerships formed from this program strengthened connections between the BLM and local schools and communities and built relationships that will serve as a pillar for future collaboration and participation.

## Project Archaeology

For more than 27 years, Project Archaeology has been providing educators and learners with high-quality archaeology stewardship education. The program uses archaeological inquiry to foster understanding of past and present cultures, which helps preserve our archaeological legacy.

Founded in 1990 by the BLM, the program has grown from its origins in Utah to include 37 state or regional programs across the country. Through a partnership with Montana State University and a network of state programs, the BLM continues to expand the program, creating products, such as “Investigating the First Peoples,” to reach secondary educators, their students, and learners at visitor centers, museums, youth group events, and other informal venues.



### Project Archaeology Participation

State	Educators Certified	K-12 Direct Instruction	Other Instruction
Alabama	50	220	0
Arizona	5	120	0
Arkansas	0	418	62
California	0	30	0
Colorado	48	945	30
Florida	136	424	108
Iowa	0	255	35
Kentucky	0	1,796	40
Missouri	14	1,000	0
Montana	0	1,305	286
Nevada	0	370	0
New Hampshire	2	5	0
New Mexico	27	964	0
Oklahoma	5	1,000	0
Oregon	0	83	3
Tennessee	143	638	50
Utah	29	988	8
Wyoming	0	55	0
National	534	215	360
<b>Total</b>	<b>993</b>	<b>10,831</b>	<b>982</b>

# Interpretation

Public lands are special places that belong to all Americans. The BLM's interpretation program inspires audiences who have diverse backgrounds, viewpoints, and needs by engaging emotions, enhancing experiences, and increasing awareness of the natural and cultural wonders that exist on public lands. Interpretive programs and products aid the BLM in providing quality visitor experiences, deepening the understanding of resource management issues, and building public interest in conserving and protecting America's public lands. In 2017, more than 5 million people attended over 33,000 programs at 176 different sites.

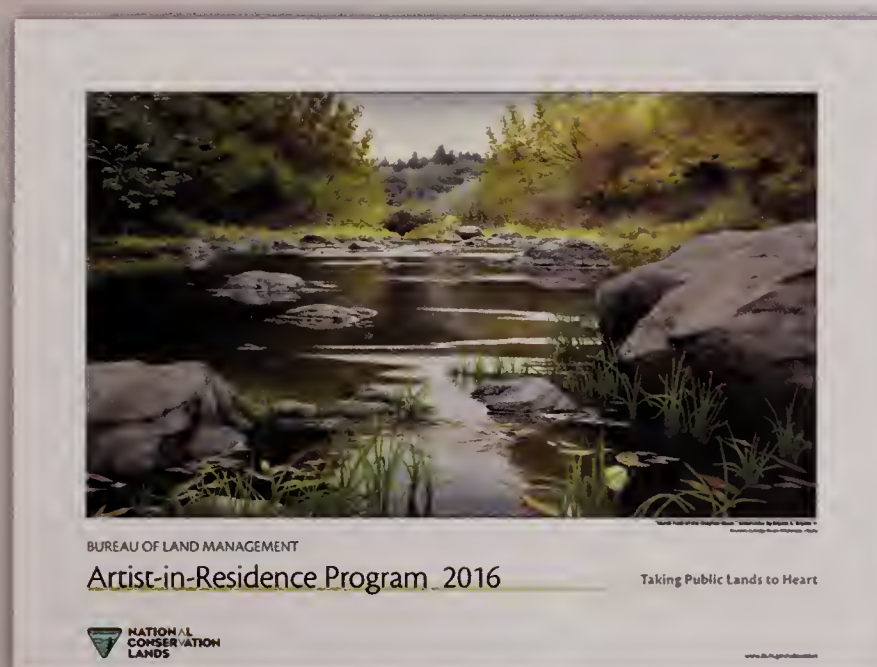
## BLM Interpretive Programs and Participants

State Office	Number of Programs	Number of Participants
Alaska	5,934	242,285
Arizona	955	128,234
California	2,569	754,706
Colorado	1,295	287,047
Eastern States	3,037	135,562
Idaho	381	37,372
Montana/Dakotas	4,217	157,084
Nevada	2,420	908,840
New Mexico	623	128,792
Oregon/Washington	4,369	1,359,844
Utah	5,943	511,949
Wyoming	1,611	349,465
<b>Total</b>	<b>33,354</b>	<b>5,001,180</b>



The BLM's **Artist-in-Residence (AiR)** program engages talented people who are passionate and creative about their public lands. Through painting, photography, sculpture, pottery making, weaving, writing, and other media, the artists share the inspiration they gain from public lands with the broader public. Their work magnifies appreciation of the land and resources, prompting the public to enjoy and expand their understanding of the treasured landscapes and features at the heart of the BLM's mission.

Artists spend a minimum of 1 week exploring the scenery and environment around their work locations and then use artistic media to share their perceptions and insights. Many of the artists exhibit their work at other venues, expanding their reach to a bigger audience. Since the inception of the AiR program in 2012, more than 14 sites and 30 different artists have participated in this unique type of interpretation.



## AWARDS

### *2017 Excellence in Interpretation or Education Awards*



Tracy Albrecht

Since 1996, the BLM's Excellence in Interpretation and Education awards have acknowledged employees who made significant contributions in interpretation and education to BLM programs, initiatives, projects, and events. Several factors influence the selection of award recipients, including the caliber and extent of their service and the program needs they have filled. The BLM recognized three employees in 2017.

Tracy Albrecht of the California Desert District Office spearheaded the multiyear Cahuilla Tewanet Vista Point project in the Santa Rosa-San Jacinto Mountains National Monument. The project involved coordination, design, fabrication, and installation of 21 interpretive panels and an audio box. The panels describe traditional Cahuilla culture, the relationship between the Cahuilla people and the land, Cahuilla language features, facts and stories about native animals, and traditional uses of plants found within the national monument. Albrecht's exemplary coordination of federal staff, academic experts, Tribal officials, and Tribal members resulted in an outstanding interpretive exhibit that is intellectually engaging and effectively blends a public land conservation message with cultural education.

Joshua Renz and Carrie Bilbao of the Boise District Office teamed up with the Boise School District to develop and implement an integrated, hands-on, 10-day wildland fire science unit for fourth grade classrooms. Renz's and Bilbao's creativity, ingenuity, and hard work were instrumental in bringing the program to fruition. The program educates students about the important ecological and environmental role that wildland fire plays in Idaho and the effect of wildland fire on Idaho landscapes, ecosystems, and the wildland-urban interface. It also helps them develop skills in math, science, history, and language arts. The popular and effective curriculum is now expanding to other school districts in Idaho.

### *Making a Difference National Volunteer Awards*

The BLM honored Yaquina Head Outstanding Natural Area volunteers Richard and Linda Crooks with the 2017 Lifetime Achievement Award at the National Making a Difference Volunteer Awards Ceremony. The Crooks have contributed more than 7,000 hours of service over the last 18 years. While living onsite, they provided guided lighthouse tours to thousands of visitors, designed the "host neighborhood" for year-round occupation by volunteers, and made historically accurate costumes by hand.

The Crooks joined these other 2017 Making a Difference awardees:

- Teresita Calderon, Outstanding Achievement, California Desert District Office (CA)
- Janice Shepherd, Outstanding Achievement, Grand Junction Field Office (CO)
- Clay Stewart, Employee Winner, Arizona Strip Field Office (UT)
- Norm Jensen, Lifetime Achievement, Cottonwood Field Office (ID)
- Friends of Nevada Wilderness, Group Excellence, Winnemucca Field Office (NV)
- Ethan Diaz, Outstanding Youth, Colorado River Valley Field Office (CO)
- Alexis and Connor Worthen, Outstanding Youth, National Historic Trails Interpretive Center (WY)



Joshua Renz



Carrie Bilbao



Linda and Richard Crooks (third and fifth from the left) with BLM staff in Oregon.



## Volunteer Program

The BLM relies on its dedicated, hard-working volunteers each year to assist in managing our public lands. In 2017, more than 28,000 volunteers of all ages contributed almost 1 million hours of service, valued at more than \$22 million. Volunteers serve in many different roles at the BLM across a variety of program areas, including recreation, environmental education and interpretation, wild horses and burros, cultural and historical resources, and riparian protection. Many volunteers serve within the BLM's National Conservation Lands units, including at national monuments and national conservation areas. Approximately one-third of all BLM volunteers are youth volunteers, age 25 and under.

### National Volunteer Totals by Program\*

Program	Volunteer Hours	Donated/ Hosted Worker Hours	Total Hours
Recreation	409,080	31,757	440,837
Biological Resources	63,310	25,053	88,363
Wild Horse and Burro	10,782	98,530	109,312
Wilderness/Wilderness Study Areas	14,009	3,022	17,031
Riparian/Watershed	23,648	20,755	44,403
Cultural/Historical	55,364	13,345	68,709
Minerals	2,943	32	2,975
Support Services	28,940	6,694	35,634
Environmental Education/Interpretation	63,372	16,614	79,986
Other	41,625	11,484	53,109
<b>Total</b>	<b>713,073</b>	<b>227,286</b>	<b>940,359</b>
<b>Funds Expended</b>	<b>\$416,366</b>	<b>\$282,937</b>	<b>\$699,303</b>
<b>Value of Work**</b>	<b>\$17,213,582</b>	<b>\$5,486,684</b>	<b>\$22,700,266</b>

\* The term "volunteer" as used in this report includes donated workers. Volunteers do not receive pay for their service to the BLM. They donate their time, and in some instances, equipment and money, to assist the BLM with a variety of tasks. Donated or hosted workers, by contrast, receive compensation from another organization but work for the BLM at no charge.

\*\* Value based on 2016 Independent Sector value of volunteer time (\$24.14 per hour).



## Summary of BLM State Office Volunteer Contributions

State Office	Hours	Value*	Work Years**	Number of Individuals
Alaska	31,100	\$750,754	17.3	2,956
Arizona	154,991	\$3,741,483	86.1	1,741
California	99,543	\$2,402,968	55.3	6,999
Colorado	196,187	\$4,735,954	109.0	2,855
Eastern States	30,426	\$734,484	16.9	569
Idaho	36,022	\$869,571	20.0	2,500
Montana/Dakotas	40,792	\$984,719	22.7	811
Nevada	59,702	\$1,441,206	33.2	2,848
New Mexico/Oklahoma/ Texas/Kansas	85,077	\$2,053,759	47.3	423
Oregon/Washington	11,534	\$2,692,431	62.0	3,584
Utah	77,570	\$1,872,540	43.1	2,500
Wyoming	17,105	\$412,915	9.5	679
National Operations Center	310	\$7,483	0.2	3
<b>Total</b>	<b>940,359</b>	<b>\$22,700,266</b>	<b>522.6</b>	<b>28,468</b>

\* Value based on 2016 Independent Sector value of volunteer time (\$24.14 per hour).

\*\* One work year is based on 1,800 work hours.

## National Public Lands Day

On Saturday, September 30, 2017, the 24th annual National Public Lands Day (NPLD) took place across the country, and the BLM was again a leading federal partner. The BLM planned and executed 285 projects at 142 sites, hosted by 90 different BLM offices. More than 10,000 volunteers participated in these projects, removing debris and invasive species, beautifying campgrounds and trails, and contributing to countless other projects. The National Environmental Education Foundation, working in concert with state and federal agencies, oversees NPLD, the nation's single largest 1-day volunteer event on public lands.



# WORK

In late December 2016, Congress passed amendments to the Public Lands Corps (PLC) Act as part of the National Park Service Centennial Act. The PLC-related provisions increased the upper age for participants from 28 to 30 and extended the period to 2 years for former corps participants to apply for federal jobs as if they were current federal employees. During 2017, these changes greatly increased interest among young people in serving with the BLM's youth corps partners. In response, the BLM updated its careers website to provide more information on the PLC program, developed a new Certificate of Eligibility for Noncompetitive Hiring Status reflecting the 2-year period of eligibility, and developed a revised directive on the PLC program. As part of this process, the BLM's Washington Office worked closely with state youth coordinators to identify frequently asked questions about the PLC and to clarify roles and responsibilities for staff members and partners working together to engage youth crews and interns.

## Partner Youth Hires

State Office	Youth*	Other	Total
Alaska	189	0	189
Arizona	114	7	121
California	204	26	230
Colorado	284	122	406
Eastern States	19	2	21
Idaho	132	159	291
Montana/Dakotas	139	107	246
Nevada	69	135	204
New Mexico/Oklahoma/Texas/Kansas	132	0	132
Oregon/Washington	656	295	951
Utah	254	2	256
Wyoming	62	9	71
<b>Total</b>	<b>2,254</b>	<b>864</b>	<b>3,118</b>

\* Youth age 35 and under; 80 hours or more..



At the national level, the BLM continued to work with partners such as the Partnership for the 21st Century Conservation Service Corps and the National Fish and Wildlife Foundation (NFWF) to support conservation projects on public lands. As in previous years, funds leveraged through NFWF greatly expanded the BLM's capacity to engage young people and veterans in habitat conservation projects. For the first time, the Washington Office supported the participation of three college-age Tribal youths and the state youth lead from Arizona in the Native Youth Community Adaptation and Leadership Congress, held in July at the National Conservation Training Center in Shepherdstown, West Virginia.

Secretarial orders issued during the year encouraged agencies to expand opportunities for hunting, fishing, and other recreational activities on public lands. To ensure access to recreation facilities, corps crews and interns engaged in trail building and facilities maintenance projects across all BLM states. In addition, crews and interns participated in numerous habitat improvement projects, expanding conservation stewardship and improving wildlife management.

Americans will celebrate the 50th anniversaries of the Wild and Scenic Rivers Act and the National Trails System Act in 2018. In preparation, BLM offices are working with partners to engage young people in river recreation and develop apprentice programs focused on river and trail resources.

Young people and veterans engaged in PLC programs are helping the BLM address administration priorities, including creating jobs, especially in rural areas; enhancing recreation infrastructure; and ensuring that all Americans can access and enjoy the many benefits of our public lands.



## Every Kid in a Park

To support the second year of the Every Kid in a Park initiative, the BLM distributed 12,428 passes to fourth graders during the 2016–17 school year. This is almost 5,000 more than the BLM distributed during the program's first year. The program provides fourth grade students and their families with a pass for free entry to more than 2,000 federally managed lands and waters nationwide for the entire school year.

## Stewardship

The goal of the BLM's stewardship program is to provide visitors and the BLM staff with tools to encourage enjoying the outdoors responsibly and minimizing individual impacts. To realize this goal, the BLM partners with the Leave No Trace Center for Outdoor Ethics to implement a three-tiered approach to outdoor ethics education.

The Master Educator Course provides the most advanced level of training and is a recommended course for BLM staff members who provide public outreach on a regular basis. The BLM's stewardship program provides funding for these courses, and the center's approved providers teach them. Master educators receive certification to teach the Trainer Course, in which participants learn to be Leave No Trace trainers. Both master educators and trainers are eligible to conduct the third level of training, Awareness Workshops, which enable the general public to learn, practice, and promote the Leave No Trace principles of outdoor ethics and responsible recreation practices.

The center presented 94 sessions throughout 2017, providing tailored Leave No Trace education programs for more than 54,000 participants. These efforts ensure that outdoor enthusiasts practice minimal impact principles that support the long-term integrity of public lands through shared stewardship.



## HOW THIS REPORT WAS COMPILED

The BLM collected data for this report from more than 300 staff members from state and field offices who contributed more than 1,100 reports on education, interpretation, volunteer, and youth employment programs during fiscal year 2017. Articles published in the BLM Daily, the online publication for BLM employees, provided additional data and photographs. The total number of participants reported in the state summaries includes participants for Project Archaeology, interpretive programs, and additional BLM education programs.

# ALASKA

## By the Numbers

Education and Interpretation Program Participants	262,060
Volunteer Hours	31,100
Volunteer Contributed Labor	\$750,754
Youth Hires	189

Throughout Alaska, the BLM found numerous ways to advance land management goals through citizen involvement. The Alaska Fire Service worked with the Alaska Job Corps to train diverse youth from rural areas in wildland firefighting. The Glennallen Field Office hosted a geology camp that took teens from glaciers to an abandoned mining town. And the Campbell Creek Science Center hosted a Teacher on the Public Lands to reach ever-larger numbers of preschool children and their families. As a result, the public is better able to enjoy family recreation and seek employment in the natural resources field.



## LEARN

### Students Enjoy Backpacking Adventure

The second annual Geology Camp, presented by the Glennallen Field Office in partnership with the Wrangell Institute for Science and Environment (WISE) and Wrangell Mountains Center, began with a 4-day backpacking adventure for seven high school students and their leaders.

On this year's adventure, students learned about plant succession and the dangers of invasive plant species. They also studied the history of Kennecott, an amazingly preserved copper ore mine from the 1900s that is a significant part the Copper River Valley's history. In the 1930s, workers abandoned the mine, turning the town and four mines into a ghost town that now belongs to the Wrangell-St. Elias National Park and Preserve. Students on this trip explored the famous 14-story mill and the powerplant at the copper mine as well as various other structures.

After the tour, the group backpacked 2 miles out to a campsite on the Jumbo Mine Trail, located at the base of the Kennicott and Root Glaciers. The on-ice adventure was the highlight of the trip, as local geologists taught students about glaciology and the area's history.



## SERVE

### Teacher Focuses on the Youngest Learners

As the Campbell Creek Science Center's 2017 Teacher on the Public Lands, Leah Babcock helped the science center attract parents with infants and toddlers for some quality outdoor time, updated and deepened the early childhood curriculum, and expanded the science center's offerings for young children.

Babcock enjoys how preschoolers show "who they are every time they talk and play" and that "they are unpredictable, for better or worse." Her appreciation for working with toddlers made her an ideal fit as the science center's Teacher on the Public Lands.

Babcock's enduring project was to develop curriculum materials expanding the popular Moms, Pops, and Tots program from a summer-only to a year-round program. She also crafted a plan to help the science center reach more young children by working directly with Anchorage area preschools. Science Center Manager Nancy Patterson noted, "We want people of all ages and backgrounds to connect with nature at the BLM Campbell Creek Science Center. In her summer with us, Leah has played an important part in making that happen."





WORK

### Job Corps Students Learn Firefighting Basics

In February, officers from the Alaska Fire Service offered a weeklong training class in basic wildland firefighting to 41 students with Alaska Job Corps, a federal education and career technical training program for people ages 16-24.

Commonly referred to as a "red card class," this training provided hands-on lessons for some of the basic methods and tools used in wildland firefighting. During one field training session, student groups took turns sharpening a Pulaski, one of the most commonly used wildland firefighting tools. Students wore stiff leather gloves as they gingerly ran a file along the edge of the blade while cradling the Pulaski in their laps.



ENJOY

### Science Center Trains Alaska Tour Guides

Holland America-Princess, Alaska's largest tour company, turned to the Campbell Creek Science Center for a new natural history training opportunity for its rail tour guides. Before the start of the 2017 Alaska tourism season, the science center's environmental educators spent a half day with 50 tour guides who staff the company's rail cars traveling between Seward and Denali National Park. The guides varied greatly in age, knowledge of Alaska, and experience in leading tours.

The tour guides rotated through a series of stations focused on topics such as Alaska birds, fish, mammals, geology, and plants found along the tour route. The BLM presenters used storytelling techniques and drew connections between their topic and the topics covered at other stations. They also provided the guides additional resources so they could learn more on their own.

"Our guides are always seeking more information to share with visitors and the science center really provided that for us," said Matt Stevens, manager of guest services for the company's Alaska/Yukon rail division. "Even our returning rail guides learned new information from the training and got new ideas about engaging with our guests."

The science center staff found working with the rail guides rewarding, knowing that the guides would be sharing what they learned with more than 150,000 visitors. "The Holland America-Princess guides interact with visitors from all over the world," said Science Center Manager Nancy Patterson. "By training them, we're amplifying the message of why public lands matter."



# ARIZONA

## By the Numbers

Education and Interpretation Program Participants	135,096
Volunteer Hours	154,991
Volunteer Contributed Labor	\$3,741,483
Youth Hires	121

Internships, camps, and school visits were just a few of the ways the BLM in Arizona reached youth, partnered with communities, and advanced its multiple use mission. Young people shared community perspectives with the BLM and took an understanding of the BLM back to their communities. The BLM helped teenagers learn about careers with the agency, boosted students' appreciation for artifacts, and placed American Indian collegians in leadership roles at a national youth congress. The return on the BLM's investment in these activities includes shared stewardship and career awareness.



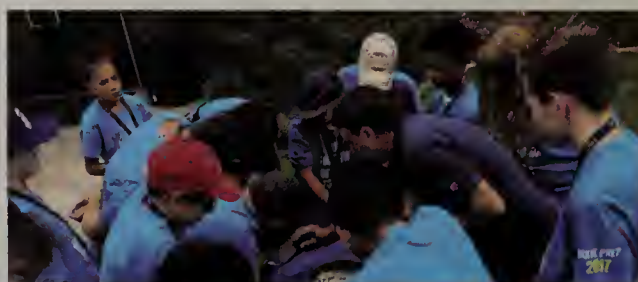
## LEARN

### Soil Scientist Wows Students

Kids can barely resist anything squishy, goopy, slimy, or funky. There's something about the strange and peculiar that piques their curiosity, stimulates participation, and makes learning fun.

That's what BLM Soil Scientist Brian McMullen found when he invited 7th–9th grade Dixie PREP summer science camp students to grab a handful of dirt to run a soils test. Soil texturing (determining soil types by touch) was just the right twist on science to fully engage the teens. When McMullen handed them the dirt, the students got right to work and, in 5 minutes, had the soil types figured out: sand (gritty), silt (floury), and clay (sticky).

As McMullen showed students various soil types from their local area, many students expressed interest in sharing their newfound skills with their families. Afterward, one student said, "I'm going to go home and test the soil in my garden!"



## SERVE

### High School Intern Helps Monitor Prairie Dogs

Katherine Carrillo-Hernandez worked as an intern at the Tucson Field Office through the San Miguel High School internship program. She said the best part of the internship was being in the field, where she helped the Arizona Game and Fish Department monitor prairie dog populations in the Las Cienegas National Conservation Area.

Hernandez helped bait humane traps to catch the prairie dogs, transferred them into a cone-shaped denim bag, and weighed and measured them. She then helped with the careful release of the prairie dogs back to their homes.

Hernandez gained experience with how the prairie dogs behave and learned about their habitat. She looks forward to future opportunities to practice stewardship by helping natural resource agencies care for animals and habitats.







# WORK

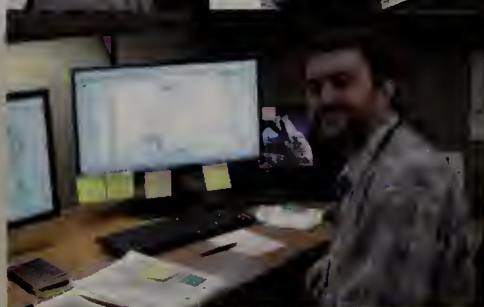
## Gila District Interns Gain Hands-On Experience

The Gila District Office employed eight interns from San Miguel High School, providing them opportunities to work on public lands, challenge themselves academically, and plan for their future success. Through the school's Corporate Work Study Program, the students earned a salary that they will apply directly to their tuition.

The students took a full college preparatory course load while they interned. They also got hands-on experience restoring water guzzlers, monitoring desert tortoise habitats, learning about public lands, removing invasive plant species, preserving historic sites, and monitoring cultural sites. Their coworkers, who are public land professionals, served as mentors.

"Having the extra set of hands to help with projects and being able to mentor students towards science careers is rewarding," said Jeff Simms, a fisheries biologist with the Gila District. "Some of the students had never been out of the Tucson metro area prior to joining the program. It gets them thinking of a career in natural resources and, at the very least, teaches them how to be responsible public land stewards."

The Gila District Office and the entire BLM benefit from programs like this that develop America's future land stewards through shared conservation and that increase workforce diversity.



# ENJOY

## Students Participate in Interactive Workshop

The James 4-H Camp in the Prescott National Forest hosted the 53rd Annual Natural Resource Conservation Workshop for Arizona Youth. The camp invited 33 middle and high school students from a variety of backgrounds to experience natural science professions in a hands-on outdoor environment.

Kingman Field Office Archaeologist Shane Rumsey introduced students to the science of archaeology and the importance of managing archaeological resources on behalf of the American public. Campers explored the importance of artifact provenience, site history, and site documentation methods.

One camper's journal entry noted, "I never knew I shouldn't pick those things up. I go camping at my grandfather's cabin in the Chiricahua Mountains and I find all kinds of old stuff. Now I know that I should leave it in place and just take a picture or tell an archaeologist."



# CALIFORNIA

## By the Numbers

Education and Interpretation Program Participants	765,681
Volunteer Hours	99,543
Volunteer Contributed Labor	\$2,402,968
Youth Hires	230

In California, the BLM and its many partners reached the next generation through a heritage education "hobo camp" for fifth graders, career awareness internships for Native American high school students, and a weekend camp for foster families who otherwise lack the means to take advantage of outdoor recreation opportunities. In addition to helping to meet land management goals, young people used citizen science to develop a stewardship ethic and increase their knowledge of natural resource careers.



## LEARN

### Fifth Graders Enjoy "A Day on the Bizz"

In April, fifth grade students and teachers from Lassen County enjoyed "A Day on the Bizz," the Bizz Johnson National Recreation Trail. The Eagle Lake Field Office and the Lassen County Environmental Education Collaborative sponsored the activities as part of the Hobo Camp experience.

The camp hosted more than 300 participants from 11 local schools. It focused on the unique aspects of the high-desert region, with an emphasis on the Native American perspective, invasive plants, native wildlife and plants, and Tread Lightly outdoor principles. The BLM's archaeology team also staffed a "Hobo Camp Hunger Games" station, where participants learned about petroglyphs and aimed for mastodon targets using atlatls.



## SERVE

### Students Help Establish Seabird Monitoring Program

Students from the Pacific Community Charter School worked with Ukiah Field Office Wildlife Biologist Kay-Leigh Barnitz to establish a seabird monitoring program at the Point Arena-Stornetta unit of the California Coastal National Monument, located within walking distance from the school. The students learned about seabird behavior, life history, and habitat as they counted seabirds on offshore islands and rocks each week and recorded their observations. The BLM entered students' data into a database and will use it to monitor the health of the coastal ecosystem. This citizen science project benefitted the students, the habitat, and land managers.





WORK

### Bishop Paiute Tribe Interns Explore Careers

For the third year in a row, Native American youth interns from the Eastern Sierra gained work experience, learned about public land stewardship, and forged new ties to their traditional landscape and community. Through a partnership among the BLM Bishop Field Office, the Inyo National Forest, and the Bishop Paiute Tribe, the Tribe employed five youths to work with the BLM staff on projects such as mapping where recreational use and bat breeding habitat overlap and removing weeds from petroglyph sites.

The BLM staff also presented workshops on natural and cultural resource specialties, career development, and workplace skills. For projects that centered on culturally important resources, the Tribe provided instruction in traditional ecological knowledge from elders. The program exposes young adults to the public lands immediately around their community and reservation. The interns hiked more than 80 miles during the summer, which culminated in a capstone 5-day wilderness trail maintenance project.



ENJOY

### Partners Host a Treasured FamCamp Outing

The Barstow Field Office and local community partners hosted Greater Hope Foundation foster families in a treasure-themed FamCamp weekend outing at the El Mirage Off-Highway Vehicle Area. The event began at the visitor center with pirate games and a rock painting party hosted by Friends of the Desert Discovery Center.

Afternoon activities included setting up camp, team-building games, exploring archaeology, and examining desert wildlife and plants. The highlight of the evening was an outdoor movie, "Pirates of the Caribbean," that supported the camp's theme. The next day's field trip across the popular 6,000-acre El Mirage Dry Lakebed featured demonstrations of remote control airplanes and land yacht sailing.

Launched in 1994 by California State Parks and the California State Parks Foundation, FamCamp is the largest statewide program that introduces camping and shared stewardship to underserved groups.



# COLORADO

## By the Numbers

Education and Interpretation Program Participants	296,873
Volunteer Hours	196,187
Volunteer Contributed Labor	\$4,735,954
Youth Hires	406

Throughout Colorado, BLM partnerships were the catalyst to career awareness, education, and tourism activities that advanced land management goals. The BLM worked with a dinosaur museum to teach hundreds of children about paleontology, with a town to expand trail access for hikers and bikers, and with a tourism firm to boost a local economy through heli-skiing. This neighborliness resulted in tangible benefits for the BLM, its partners, and the public.



## LEARN

### Children Celebrate Dinosaur Day

In June, the BLM participated in the 30th annual Dinosaur Day. The Dinosaur Journey Museum, one of the Grand Junction Field Office's partners in the community, hosted the event.

Dinosaur Day provides a fun way for children to learn about dinosaurs and their environment. The BLM staff, volunteers, and partner groups teamed up to help young people learn the importance of paleontology and geology. The staff also explained the many learning and recreation opportunities available for family enjoyment on public lands. Approximately 300 children participated in the activity at the BLM booth, and more than 1,000 guests visited the event.

The Dinosaur Journey Museum is a BLM-permitted curator of paleontological resources found on federal lands. Permitted paleontologists may officially store and exhibit their discoveries at the museum. The museum also helps the BLM manage the Dinosaur Hill Trail, the Fruita Paleo Area, Opal Hill, and the Trail Through Time.



## SERVE

### Partnership Supports Community Garden

The Grand Junction Field Office partnered with Betsy Chapoose of the Ute Indian Tribe of the Uintah and Ouray Reservation and with Susan Carter and Susan Honea of Colorado State University Extension Service to support the Ute Ethnobotany Project. The BLM's Alissa Leavitt-Reynolds and Natalie Clark helped create, improve, expand on, and sustain a community garden in Grand Junction. The garden helps educate the public and Tribal youth about Ute culture and the uses of traditional plants.





## WORK

### Youth Corps Members Expand Hiking and Biking Trails

The Town of New Castle, the Roaring Fork Mountain Bike Association (RFMBA), and the BLM partnered to create and maintain a sustainable mountain biking and hiking trail system north of town. The Rocky Mountain Youth Corps constructed the rerouted trails.

The project boosts recreation and meets land management goals. "We've approved a designated trail system that provides a great recreational opportunity right in New Castle's backyard. Working with the Town of New Castle and RFMBA, we have been able to address some of the concerns we had with the existing network of user-created trails, such as long-term sustainability, trespass issues, and protecting sensitive wildlife areas," said Acting BLM Colorado River Valley Field Office Manager Gloria Tibbetts.

RFMBA Executive Director Mike Pritchard said, "RFMBA and our New Castle Trails committee have been fortunate to work with willing partners at the Town of New Castle and the BLM to study existing and future trails in this area. The trail system will provide opportunities for increased health, fitness, and fun in the beautiful setting of pinion, juniper, and red rock."



## ENJOY

### Heli-Skiing Boosts Silverton Economy

The Gunnison Field Office approved a special recreation permit for Silverton Mountain Guides and their guided helicopter skiing (heli-skiing) operations on BLM lands in Silverton.

Silverton Mountain Guides proposed a modification that exchanges previous terrain used for backcountry heli-ski operations with other, nearby terrain on BLM lands. "Heli-skiing is a very popular activity in the area that creates a significant boost to the winter economy of Silverton. This decision lets Silverton Mountain Guides fully utilize their allocated user days while having a minimal effect on other backcountry users," said Elijah Waters, Gunnison Field Office manager. "It's a win-win for everyone involved."

Silverton Mountain employs 45 people and is one of the largest employers in San Juan County. Tourism is the dominant industry in San Juan County, accounting for 47 percent of jobs and indirectly contributing to retail, lodging, and other visitor services.



# EASTERN STATES

## By the Numbers

Education and Interpretation Program Participants	146,407
Volunteer Hours	30,426
Volunteer Contributed Labor	\$734,484
Youth Hires	21

Across the vast Eastern States footprint, the BLM demonstrated how to be neighborly. Through partnerships that engaged citizens in supporting land management goals, the Southeastern States staff worked with volunteers and youth corps crews to assist local communities recovering from a particularly severe hurricane season. The Northeastern States staff again participated in Canoecopia, the largest paddlesport consumer event in the world, where demonstration of a mobile story map promoted tourism opportunities at the Wisconsin Islands. A BLM Earth Day exhibition produced in Milwaukee by the Northeastern States District promoted stewardship and family recreation.



## LEARN

### Northeastern States District Celebrates Earth Day

The BLM Northeastern States District staffed an exhibit at an Earth Day event held at the Urban Ecology Center at Washington Park in Milwaukee. The BLM shared information with community members about outdoor recreation opportunities and activities on public lands and encouraged families to get outdoors.

Public Affairs Specialist Martha Malik and Natural Resource Specialist Katherine Kassander displayed animal furs and skulls from the Urban Wildlife trunk, sparking conversations about wildlife in the outdoors. Service projects performed that day included weeding flowerbeds, removing noxious weeds and dried out bushweeds, cleaning up rivers, and picking up litter. Children and their families also enjoyed a day of fishing.



## SERVE

### Volunteers Help with Coastal Cleanup

National Public Lands Day coincided with the International Coastal Cleanup and featured Hurricane Irma recovery efforts. Volunteers gathered trash and helped clear debris on foot, by snorkeling, and by paddling along the waterway at Jupiter Inlet Lighthouse Outstanding Natural Area.

“National Public Lands Day is a great opportunity for family, friends, classmates, or coworkers of any age or ability to spend a day outdoors and make a real difference on public lands through volunteering,” said Jupiter Inlet Manager Peter DeWitt.

Through events like National Public Lands Day, the BLM works to promote shared conservation stewardship by connecting people to public lands in their community. The event, planned in partnership with the National Environmental Education Foundation, inspires environmental stewardship and encourages the use of public lands for education, recreation, and general health.



WORK



### AmeriCorps Crew Cleans Up after Hurricane

The Jupiter Inlet Lighthouse Outstanding Natural Area (ONA) hosted an AmeriCorps National Civilian Community Corps (NCCC) crew for 2 weeks in February. While there, nine NCCC members worked tirelessly to mitigate the effects of Hurricane Matthew, which ravaged the eastern coastline.

Before getting to work, the crew completed the Wildland Fire Chain Saw course. The course included 2 days of classroom instruction and 2 days of field work to apply classroom theory on the ground.

During their stay at the ONA, the NCCC crew felled more than 30 trees damaged or destroyed during Matthew. The majority of trees felled were exotic and invasive species, which are typically unable to endure the extremes of tropical weather patterns. The newly qualified sawyers also cleaned up by chipping downed timber and improved a trail behind the lighthouse for use by the public in the future. The crew's work saved the public the commercial cost of felling, bucking, and chipping the trees, estimated at more than \$15,000.



ENJOY

### BLM Employee Honored for Recreation App

The Partners Outdoors program brings leaders from federal recreation agencies and the recreation industry together to better serve public land recreation visitors. The BLM is a long-time member of Partners Outdoors, along with the American Recreation Coalition (ARC), seven other federal agencies, and numerous private sector partners.

At the annual Partners Outdoors Conference, ARC presents its Beacon Awards to recognize exceptional initiatives where new technologies provide improved, cost-effective, and creative solutions to recreation program needs. This year, ARC honored Katherine Kassander, a BLM natural resource specialist in Milwaukee, for developing the BLM Wisconsin Islands story map mobile app. It provides visitors with easily accessible information on their smartphones about the recreation opportunities and stewardship needs of more than 500 river and lake islands in Wisconsin.

The app, created in partnership with the nonprofit organization American Conservation Experience, is helpful for trip planning, and it provides the public with information about BLM volunteer opportunities. It has also increased public awareness of the BLM's stewardship role in the Northeast.



# IDAHO

## By the Numbers

Education and Interpretation Program Participants	73,221
Volunteer Hours	36,022
Volunteer Contributed Labor	\$869,571
Youth Hires	291

Partnerships facilitated educational, volunteer, and recreational activities across Idaho. Through trail rides, sagebrush plantings, and a wildfire curriculum, the BLM engaged citizens in numerous ways that promoted shared stewardship and helped land managers carry out the BLM mission. In addition, high school students gained career skills by producing kiosks that share crucial information with visitors to public lands.



## LEARN

### Team Participates in Idaho Environmental Education Conference

Last March, BLM fire mitigation/education specialists participated in the 17th annual Idaho Environmental Education Conference, held in Boise. The conference brought together formal and environmental educators from across Idaho to share top-notch environmental education resources with communities and classrooms.

Because nearly two-thirds of Idaho's wildfires are preventable, educating the public and youth on how to prevent wildfires is an essential part of the solution. The BLM introduced the FireWorks curriculum, adapted from a widely used educational tool first created at the U.S. Forest Service Rocky Mountain Research Station in 2000. The curriculum increases students' understanding of natural resource sciences, enhances scientific literacy, and develops critical thinking skills about science-related social issues. The entire curriculum is available at [www.frames.gov/fireworks/curriculum/sagebrush-ecosystem/](http://www.frames.gov/fireworks/curriculum/sagebrush-ecosystem/).

In addition to FireWorks, the BLM team highlighted the fourth grade wildland fire curriculum currently in use by the Boise School District.



## SERVE

### Partners Pitch In for Sagebrush Restoration

Through a partnership agreement, Pheasants Forever and the Twin Falls District Office planted 75,000 sagebrush seedlings on 3,400 acres within the Craters of the Moon National Monument. The Institute for Applied Ecology and the Idaho State Correctional Center grew and nurtured 36,000 of those seedlings.

The shrub planting was part of a long-term rehabilitation plan to improve habitat, which had burned in the 2012 Flat Top 2 Fire. Perennial forbs and grasses are now abundant in the area, and shrubs seeded directly after the fire are also establishing. As the plants grow and mature, they will ultimately provide habitat diversity and connectivity for sagebrush obligate species.

Partnerships and volunteers help the BLM carry out its mission. "These partnership agreements really go a long way to help us accomplish our objective to have a landscape level effect on the ground—to improve the habitat that supports sage-grouse, mule deer, and elk," said Twin Falls District Natural Resource Specialist Danelle Nance.





## WORK



### Students Build Informational Kiosks for the BLM

Last year at Gooding High School, agriculture and shop students were measuring, lifting, moving, checking, double-checking, cutting, or designing as they built informational kiosks for the BLM Idaho Twin Falls District. The district's fire management program partnered with the Mid-Snake Resource Conservation and Development program to commission the students to create two kiosks to be used along popular travel routes and at recreational areas. The kiosks contain fire information, prevention tips, closures, restrictions, and other information.

After receiving the order, the students learned techniques to create the kiosks. Teacher Tom Woodland split them into teams, had them choose a team leader, and then stepped back and let them take charge. "I offer help and suggestions along the way, but this is mostly up to them—they know that and take a lot of pride in it," said Woodland.

Four students worked together to create one of the kiosks. Instead of simply executing a preset design, they offered suggestions for improvement. One student explained, "The first thing we noticed was the design. It had a lot of different pieces to it, which makes it weaker at the joints. So we contacted the BLM and told them we had a better idea." After getting approval from the BLM to change the specifications for the kiosks, the team got to work gathering materials, measuring the steel, and practicing wire feed welding.



## ENJOY

### Boise District Office Hosts Trail Ride and Potluck

The Idaho Mustang Club and the Boise District Office hosted a trail ride through the Sands Basin Herd Management Area (HMA), one of six herd management areas in Idaho where wild horses roam the rangelands. The Soda Fire burned through the entire HMA in 2015. The BLM gathered most of the wild horses during an emergency operation following the fire.

The ride was open to all equines and equestrians. Participants brought beverages and a side dish for a potluck following the ride. Trail rides boost recreation access and educate the public about the BLM's commitment to maintaining a healthy wild horse population over the long term and a healthy rangeland habitat.



# MONTANA/DAKOTAS

## By the Numbers

Education and Interpretation Program Participants	174,629
Volunteer Hours	40,792
Volunteer Contributed Labor	\$984,719
Youth Hires	246

In Montana and the Dakotas, the BLM educated and engaged youth in an array of land management activities. Volunteers and youth corps members planted trees to restore riparian areas, Tribal college students supported the National Seed Strategy, and a high school's caving club helped the BLM balance recreational access with conserving the rare resources found in caves.



## SERVE

### Partners Cohost a Cottonwood Planting Event

For the fifth straight year, the BLM partnered with the Friends of the Missouri Breaks Monument to promote revegetation along the banks of the Upper Missouri River. The partners cohosted a cottonwood planting event involving 40 volunteers in the Upper Missouri River Breaks National Monument.

Planting efforts focused on the Terry Ranch Undaunted Stewardship site and Little Sandy Campground, where the cottonwood galleries are reaching the end of their life cycles. The project used more than 150 cuttings from young trees in healthy cottonwood groves along Arrow Creek and the Judith River.

The Little Sandy Campground is a BLM-managed site accessible to the public only from the river. It has a quarter-mile-long cottonwood gallery that was showing no signs of regeneration in the riparian area. Now, volunteers have planted 80 young trees and fenced them to protect them from wildlife.

Over the next 2 years, interns from the Friends of the Monument will make weekly trips throughout the summer to water the young trees, helping them to develop strong root systems that reach the permanent water table. This practice has proven successful at past project sites, with more than 80 percent of the trees having survived.



## LEARN

### BLM Program Plants Seeds at Student Conference

The BLM participated in the 36th annual Student Conference of the American Indian Higher Education Consortium in Rapid City, South Dakota. The gathering drew about 1,200 students and 36 Tribal colleges and universities, along with many sponsored booths. The BLM was represented by Velvett Cummins, a contracting specialist and Crow Tribal member, and Wendy Velman, the botany program lead, both from the Montana State Office.



Cummins is a current board member of the Little Bighorn College located in Crow Agency and a familiar face to the faculty. She spoke with students about her position with the BLM as well as job opportunities and educational requirements for those jobs. Students also learned what the BLM does for the American public and for the Tribes that rely on public lands for many cultural purposes. Velman gave a presentation on BLM's National Seed Strategy.

The Montana/Dakotas plant materials program seeks to expand partnerships with Tribal colleges, hoping to build relationships of trust with improved information sharing and educational experiences.



WORK



### Youth Crew Continues Creek Restoration

Cherry Creek wanders across a checkerboard pattern of private and BLM-managed public land as it trickles southward to its rendezvous with the Yellowstone River. When a 2005 survey identified the creek as ecologically impaired, the BLM's stretch was largely devoid of trees. With the help of the Montana Conservation Corps, the picture of this watershed changed considerably by 2017.



In 2006 and 2007, the BLM worked with crews to plant 5,050 sandbar willow and cottonwood cuttings and more than 900 rooted seedlings. A decade later, about 85 percent of those original plants continue to thrive.

BLM Fish Biologist Christina Stuart supervised additional plantings along the creek in 2017. "We planted again this year to add an additional seed source to the watershed and another age class," said Stuart. "Healthy riparian areas need a diverse age class structure to become a sustainable riparian area."

"The BLM, along with help from a Montana Conservation Corps crew of nine, planted 550 seedlings along a 1-mile stretch of Cherry Creek," said Stuart. "MCC was fun to be around, had great attitudes, and were hard workers." With the reestablished vegetation, Cherry Creek has a better chance for a productive future.



ENJOY

### Groups Shine a Light on the Pryor Caves

Caves like those in Montana's Pryor Mountains are unique landforms with unique resources. Their unusual mineral deposits, habitat for rare animals, and special recreational opportunities require special management. But land managers struggle to make caves available to visitors while protecting public safety and the caves' resources.

Enter the Bigfork High School Cave Club and the Northern Rocky Mountain Grotto, whose members are dedicated to cave exploration and conservation. These two groups survey and monitor caves, restore fragile resources, and promote safe and sustainable access for the public. They spent several summer days in the Pryors mapping caves with GIS technology, delineating paths to minimize impacts from visitors, and removing the existing graffiti.

Their efforts laid some groundwork for their next step, which is to work with the BLM to draft a management plan that will mitigate impacts to cave resources while allowing some public access. Such collaborative management is the essence of a good neighbor approach to protecting resources while encouraging outdoor recreation.





# NEVADA

## By the Numbers

Education and Interpretation Program Participants	953,670
Volunteer Hours	59,702
Volunteer Contributed Labor	\$1,441,206
Youth Hires	204

Partnerships across the Silver State brought citizens out onto their public lands for fun, career awareness, shared stewardship, and habitat protection. BLM offices invited an Eagle Scout candidate to clean up an enormous illegal dump, permitted a legendary off-road race while protecting desert tortoises, and deployed youth corps and other partners to remove mine markers that threaten wildlife.



## SERVE

### Eagle Scout Organizes Cleanup

Skyler Carter, a 14-year-old Boy Scout from Lund, spearheaded the cleanup of an illegal dumpsite on BLM-managed lands south of town to help him earn his Eagle Scout Award. The Eagle Scout service project was an official National Public Lands Day event in eastern Nevada.

To clean up the dumpsite, Skyler enlisted the help of the local community and the BLM's Bristlecone Field Office. The large project required heavy equipment and dozens of volunteers. The one-third-mile-long dumpsite contained all kinds of litter, from bags of household garbage to home siding and a hot tub.

John Miller, outdoor recreation planner for the Bristlecone Field Office, said before the event, "Skyler's already organized the community, enlisting those with equipment to haul sizable items, such as washers and dryers, to dumpsters placed onsite. Most of the bulkier pieces will be removed before the majority of the volunteers arrive to finish picking up on September 30."

Miller said the Bristlecone Field Office will post signs at the site to discourage future dumping and will erect a sign commemorating Skyler's service project.



## LEARN

### Fourth Graders Attend Lovelock Cave Days

Lovelock Cave Days is a multiday, multipartner event that has occurred each May, which is Nevada Archaeology Month, since 2006. The 12th annual event provided hands-on learning experiences for fourth grade students from Humboldt, Pershing, and Washoe County schools at the Marzen House Museum, a public museum operated by Pershing County, and at Lovelock Cave, one of the most important archaeological sites in the Great Basin. The cave is located on public lands managed by the BLM.

Students learned about the spear-throwing atlatl, heard stories of emigrant hardship along the California Trail, and saw real-life examples of local wildlife. They hiked the scenic nature trail to Lovelock Cave, touched native plants and listened to stories of how Native peoples used them, and learned of the geologic processes that formed the cave. From the cave, they could see a rare view of water in the Humboldt Sink, which typically has been dry for the last 100 years. At the Marzen House Museum, students heard presentations on prehistoric and contemporary Native American life and the rich mining, farming, and ranching history of the Lovelock area.

The annual event educates students and promotes appreciation of their local cultural and natural resources, which are key to their protection and sustainability.





# WORK



## Partners Pull Mine Markers to Save Wildlife

After a state law went into effect in November 2011, the BLM's Southern Nevada District Office (SNDO) began working with partners to pull mine markers made of hollow PVC pipe from the ground. Birds, insects, and even reptiles often use these markers as shelter and then later become trapped inside.

Over the years, the SNDO has partnered with nonprofit groups, such as Red Rock Audubon Society and Friends of Gold Butte, and planned Migratory Bird Day events to encourage individual hikers and small groups to pull markers. The SNDO has also joined with the Nevada Department of Wildlife to fund crews from the Nevada Conservation Corps Student Conservation Association. Deploying youth corps members promotes awareness of natural resource careers in addition to improving habitat.

The BLM and its partners have removed more than 95 percent of these markers to date and expect to pull the remaining 1,000 by 2019. Partners anticipate that this effort will save the lives of more than 100,000 birds, millions of insects, thousands of lizards, and hundreds of bats.



# ENJOY

## BLM Office Supports Desert Race and Protects Desert Tortoises

The BLM's Southern Nevada District Office issued a special recreation permit for the Mint 400, a legendary annual off-road vehicle race. The race included 350 teams in 25 classes of off-road vehicles battling one another and the elements for a \$100,000 prize.

The bone-jarring, 400-mile looped race, in which competitors endure roaring clouds of dust, jagged rocks, and just about everything the Mojave Desert can throw at them, is as much a cultural event as it is a test of endurance for the drivers.

In addition to permitting the race, BLM employees mitigate risks to desert tortoises in the region. Although the BLM always schedules the race to occur outside of the desert tortoise active season, variable weather conditions mean that tortoises can sometimes be found moving on and around the racecourse. BLM biologists install temporary wire pens around active tortoise burrows within 50 feet of the racecourse to minimize the risk of tortoises being on the course.



# NEW MEXICO/ OKLAHOMA/TEXAS/ KANSAS

## By the Numbers

Education and Interpretation Program Participants	132,698
Volunteer Hours	85,077
Volunteer Contributed Labor	\$2,053,759
Youth Hires	132

In New Mexico, volunteers tackled illegal dumping, families enjoyed a paleontology hike, and interns helped nominate a site to the National Register of Historic Places. An AmeriCorps Volunteers in Service to America (VISTA) member developed an environmental education curriculum for outdoor educators. These are just a few of the ways the BLM reached youth and families, engaged volunteers, encouraged stewardship, and promoted employment while addressing land management priorities.



## LEARN

### Employee Volunteers to Promote Outdoor Learning

The Department of the Interior, AmeriCorps Volunteers in Service to America (VISTA), Conservation Legacy, and many local nonprofit partners collaborate to help underserved communities use public lands for employment opportunities, family recreation, and education. To support this effort, VISTA volunteer Courtney Getchell of the BLM Las Cruces District worked on several BLM educational and resource activities to benefit a variety of public land users.

“Courtney has devoted a lot of time working on the Hands on the Land, Take it Outside–New Mexico and Every Kid in the Park programs,” said BLM Las Cruces District Volunteer Coordinator Eileen Davis. She developed outdoor classroom curricula and field trips to engage fourth grade students from Las Cruces. The Prehistoric Trackways National Monument and the Dripping Springs Natural Area hosted place-based learning activities, such as scavenger hunts and hikes to La Cueva Rock Shelter.

In addition, Courtney was successful in getting a \$3,500 Hands on the Land mini-grant to support the BLM’s 2017 Girls Summer Day Camp for 13 underserved fourth grade girls in Las Cruces. The camp focused on stewardship and careers in science, technology, engineering, and math.



## SERVE

### Partnership Combats Illegal Dumping

The BLM’s Las Cruces District works with volunteers and the Illegal Dumping Partnership (IDP) to address the problem of illegal dumping within the district. The IDP is a multiagency task force dedicated to preventing illegal dumping within Doña Ana County.

Since initiating this collaboration in 2012, the BLM has assisted in cleaning up more than 1,500 individual dumpsites on public lands and has collected approximately 1,741 tons of illegally dumped materials. BLM interns and volunteer organizations have been crucial to mitigating illegal dumpsites and protecting public lands.

The cleanup effort includes a campaign to educate the public about the harmful environmental impacts of illegal dumping and a smartphone app for residents to report dumpsites. Through billboards, posters, and other advertising, the IDP promotes responsible disposal of trash, household items, and construction material.





WORK



### Interns Help Nominate Site for National Register of Historic Places

With the help of two Direct Hire Authority (DHA) interns, the Las Cruces District Office nominated the Three Rivers Petroglyph Site for the National Register of Historic Places. For 11 weeks, Trinity Miller, a University of California–Berkeley graduate, and Fernando Gonzalez, a University of California–Merced graduate, helped prepare a report to spotlight one of the largest and most interesting petroglyph sites in the Southwest.

The Three Rivers Petroglyph Site has hosted several major professional and volunteer archaeological field schools and research projects over the years. Hundreds of hours have been devoted to documenting over 21,000 petroglyph elements, including the foundations of three types of prehistoric buildings, created by the Jornada Mogollon culture between 400 and 1450 A.D.

“Highlighting the significance of Three Rivers through the National Register is an important step in preserving this nation’s cultural heritage. I am thankful for the opportunity to help preserve our resources and emphasize the importance of cultural histories,” said Miller. Gonzalez added, “This nomination has been a long time coming, and I’m just appreciative of the opportunity to contribute to the preservation of one of the coolest sites I’ve ever seen.”

Las Cruces District Supervisory Archaeologist Matthew Punke said, “It has been a pleasure working with both Trinity and Fernando. They have brought new perspectives and positive energy to the office. Not only is the DHA internship program a great opportunity for young professionals looking to join the BLM, it is a great tool for managers to find energetic and driven staff to work on their team.”



ENJOY

### Hike Explores Trackways Geology and Paleontology

In August, the BLM offered a guided hike in the Prehistoric Trackways National Monument, highlighting its geologic history and significant paleontological and recreational resources. BLM Paleontologist Colin Dunn led visitors on the 3-mile hike to the original major deposit of Paleozoic Era fossilized trackways—footprints of numerous amphibians, reptiles, insects, and plants—dating back 280 million years. Visitors learned about the terrestrial world of the Early Permian Period and the animals that roamed the tidal flats of the ancient oceans.



# OREGON/WASHINGTON

## By the Numbers

Education and Interpretation Program Participants	1,415,221
Volunteer Hours	111,534
Volunteer Contributed Labor	\$2,692,431
Youth Hires	951

In Oregon and Washington, the BLM engaged citizens in crucial land management activities that boosted public lands awareness and stewardship. The National Historic Oregon Trail Interpretive Center celebrated 25 years of promoting tourism and engaging volunteers. A recreation and rivers program lead developed a training curriculum to help colleagues understand wild and scenic rivers, which both improves management and enhances visitor experiences. Youth corps crews developed job skills while making more public lands available for recreation.



## SERVE

### Volunteers Clean Up for Earth Day

Wenatchee Field Office employees and Central Washington University (CWU) students celebrated Earth Day early during the 44th Annual Earth Week Cleanup day. Hosted by CWU, the event engaged more than 350 volunteers at locations around Ellensburg and in the Yakima River Canyon. The BLM has been a partner in this cleanup for the last 6 years and hosted 100 volunteers at 3 sites in the Yakima River Canyon. Volunteers accomplished a variety of tasks, including painting, brushing trails, pulling weeds, cleaning picnic tables, and removing litter.



## LEARN

### Oregon Trail Center Turns 25

In May, the National Historic Oregon Trail Interpretive Center celebrated its 25th anniversary. Since 1992, a staff of interpreters, volunteers, contractors, and partner groups have provided theater programs, living history demonstrations, exhibits, multimedia presentations, activities and special events, and guided hikes on more than 4 miles of interpretive trails, averaging more than 500 presentations per year.

Using life-size displays, films, and live theater presentations, the center continues to tell the story of Oregon Trail pioneers, explorers, miners, and settlers of the Frontier West. The 500-acre site includes remnants of the historic Flagstaff Gold Mine, actual ruts carved by pioneer wagons, and magnificent vistas of the historic trail route.

A quarter century of experience shows that community and government partners were right to expect an economic boost from the center. More than 2.2 million visitors from around the globe, thousands of K-12 students, and countless tour groups have taken advantage of programs at the center over the years.







WORK



**Youth Corps Promote Access and Improve Water Quality**

Hikers and anglers had much to celebrate as youth corps members gained job skills through water quality and trail work. In August, Northwest Youth Corps crews built and maintained three trails to promote recreational access to public lands in the Steens Mountain Cooperative Management and Protection Area. They installed the new 5.7-mile Fred Riddle Trail, brushed out 4 miles of the Blitzen River Trail at Page Springs Campground, and rerouted and improved the 1-mile Nye Trail.

Over 2 weeks in the spring, the Columbia River Youth Corps boosted Bear Creek water quality by planting and installing protective cages around more than 800 native trees, including alder, cedar, big leaf maple, and black cottonwood. The corps members came from the Saint Helens and Scappoose School Districts. Before planting the trees, the crew studied salmon biology to deepen their understanding of how riparian conditions affect salmon habitat.



ENJOY

**BLM Employee Honored with Legend Award**

The BLM is a long-time member of Partners Outdoors, along with the American Recreation Coalition (ARC), seven other federal agencies, and numerous private sector groups. Partners Outdoors brings leaders from the public and private sectors together to better serve public land recreation visitors.

Each year at the Partners Outdoors Conference, ARC presents its Legends Award, recognizing individual efforts to expand and enhance recreational opportunities for visitors. This year, ARC recognized Christopher Dent, the BLM's recreation and rivers program lead in Oregon. Dent helped ensure the protection and enhancement of wild and scenic rivers by developing an updated national-level training curriculum to educate field staff about the BLM's planning policies pertaining to wild and scenic river management.

Dent also enhanced the Rogue River's visitor services and successfully implemented partnerships to improve public facilities, resulting in new and improved boat ramps, day use areas, and access for all users. His continuous efforts to partner with youth-serving organizations keep future generations engaged in public lands stewardship.



# UTAH

## By the Numbers

Education and Interpretation Program Participants	533,545
Volunteer Hours	77,570
Volunteer Contributed Labor	\$1,872,540
Youth Hires	256

Young people across Utah gained job skills, cultural awareness, and an understanding of paleontology through BLM-sponsored camps and internships. Camp Kwiyamunsi connected American Indian students to their Tribal heritage and to hands-on science, and a paleontology camp showed interns what a career with the BLM might look like. Another partnership engaged students in citizen science through the Christmas Bird Count, and their observations populated a global database used by land managers.



## LEARN

### Girl Scouts Earn Project Archaeology and Paleontology Patches

Last summer, 38 Utah Girl Scouts earned their archaeology and paleontology patches thanks to the BLM's Project Archaeology, Paleontology, and Junior Ranger programs. At the Canyonlands Field Institute camp area near Moab, BLM archaeologists and Tribal elders led field trips and activities that instilled respect for cultures and historic places. The Girl Scouts learned how to classify artifacts, map archaeological sites, study landscapes, build wickiups, and throw atlatls. After 3 days of archaeological immersion, they proudly earned their "Respect and Protect" patches.

Canyon Country District Paleontologist ReBecca Hunt-Foster, along with the Utah Friends of Paleontology, developed the new Girl Scouts of America Paleontology Patch, soon to be offered nationwide. The program promotes stewardship of the natural world for current and future generations and fosters learning about how scientists use fossils to research ancient ecology and natural environments. Scouts earn the patch by completing a series of hands-on paleontology lessons and onsite stewardship projects.



## SERVE

### Students Take Part in Annual Bird Count

The Kanab Field Office and Grand Staircase-Escalante National Monument have helped coordinate local activities for the National Audubon Society's Christmas Bird Count (CBC) since 2002. Last year, BLM experts used assembly-type presentations, field trips, and a guest speaker with live raptors to engage 18 schools and more than 5,000 students in bird watching and CBC activities.

The young people then joined thousands of volunteers across the country in gathering data for the CBC, a worldwide citizen science census and conservation effort designed to protect birds and their habitat. Scientists enter citizen-gathered information into a global database, which land managers use to assess bird populations and ecosystems. The exercise helps citizens understand through firsthand experience how science informs land management.

Taking part in the CBC also gives students an appreciation for multiple-use management and the BLM's role as a community partner and environmental education provider.





WORK



### Interagency Team Launches Paleo Camp

The BLM and the Salt Lake Center for Science Education (SLCSE), a local STEM-based charter school, hosted a weeklong Paleo Camp for middle school students at Cleveland-Lloyd Dinosaur Quarry. Regional Paleontologist Greg McDonald worked with the school's outdoor exploration instructors to develop the camp's curriculum around the world-class paleontological resources and recreation sites on public lands in Utah.

Jeanette Matovich, youth program lead for Utah, recruited three interns from a National Association of Interpretation training course to help with the camp. Interns Ryan Ashcraft, Marissa Sly, and Alex Studd-Sojka, who are all trained wilderness first responders, mentored the campers in addition to ensuring a safe camp. The interns gained crucial job skills and connections while adding immense value to the camp.

Camp attendees gained hands-on job skills from BLM professionals. They learned how to clean off dinosaur tracks, measure and photograph tracks using photogrammetric techniques, and calculate dinosaur hip height and stride length from the measurements.

In addition, the students helped the BLM by collecting primary data that the agency will use for research and interpretation.



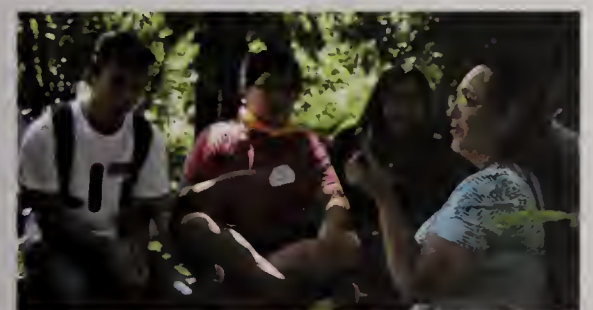
ENJOY

### Camp Connects Natural Resources and Cultural Traditions

In August, middle school students from five Southern Paiute bands in a tristate area came together for Camp Kwiyamuntsi, a 4-day culture and STEM camp held in southern Utah. The camp took place in the Dixie National Forest, which is the Southern Paiute Tribe's ancestral homeland.

For the past 5 years, through an award-winning partnership, the BLM's Utah offices and Grand Staircase-Escalante National Monument, Southern Paiute Tribe, Southern Utah University (SUU), and several regional federal agencies have worked together to plan and implement Camp Kwiyamuntsi. The camp featured natural resources-based learning stations, including wildlife biology, hydrology, astronomy, archaeology, fire and fuels, paleontology, Leave No Trace, and ethnobotany. Agency instructors teamed up with Southern Paiute elders, allowing the students to embrace a combination of traditional ecological knowledge, native language, and western scientific methods. The students also enjoyed activities like mountain biking, canoeing, singing, storytelling, and traditional team games.

Many students said that their favorite part of camp was reconnecting with friends and the outdoors and feeling like they were part of one big family. Agency partners encourage students to pursue natural resources education and employment, and some former campers have gone on to study natural resources in college or to gain employment with youth conservation corps and land management agencies.



# WYOMING

## By the Numbers

Education and Interpretation Program Participants	358,385
Volunteer Hours	17,105
Volunteer Contributed Labor	\$412,915
Youth Hires	71

The BLM promoted access to outdoor recreation by engaging volunteers in clearing a campsite of downed trees and by partnering with a community to provide winter sporting activities. Conservation corps members helped to protect wilderness study areas, and middle school students learned about outdoor ethics at a summer camp. Local economies, families, and BLM's potential future workforce all benefited from these collaborative efforts.



## LEARN

### Students Find Their "Inner Bison"

Summer school students from Rocky Mountain Middle School in Cowley discovered their "inner bison" while participating in a BLM hands-on educational program on public land just north of Cody.

The "Take it Outside! Living Landscapes" program helped students understand that they are an integral part of their ecosystem. Through various activities, they discovered relationships between components of the Bighorn Basin ecosystem and past and present human activities. Students examined several topics, including geology, wildlife biology, paleontology, archaeology, and outdoor recreation ethics.

Dr. Larry Todd, chair of the Park County Historic Preservation Commission, and the BLM staff compared bones from a human skeleton model to casts of ancient wildlife of the Bighorn Basin, such as the short-faced bear, dire wolf, and saber-toothed tiger, as well as modern day wildlife. "We all have an inner bison," Todd told the students. "You've got a skeleton in you that ties you to every other mammal on earth."

"The Take It Outside! Living Landscapes program is a valuable component of the Cody Field Office's efforts to be a good neighbor through interpretation and environmental education for local students," said BLM Archaeologist Kierson Crume, who began offering the program 9 years ago. Rocky Mountain High School Teacher Ryan Boettcher sees the program as a way to sharpen students' skills and keep them engaged over summer vacation. "We use the BLM's archaeology curriculum as a framework to get the students outside and to encourage outdoor recreation, healthy habits, and exercise," said Boettcher.



## SERVE

### Volunteers Spruce Up Campground

The BLM's Rock Springs Field Office teamed up with the Conservation Outdoor Recreation Education (CORE) group to improve the Sweetwater Guard Station Campground, located in the Wind River Mountain Range. Community partnerships with groups like CORE are an essential component of the BLM's mission to practice shared conservation stewardship on BLM-administered lands.

Working with youths aged 8-18 and four staff members, the CORE crew spent 5 days removing and replacing 24 wooden boundary bollards, which had sustained damage over time from vandalism and the elements. The crew also cleared the walk-in camping site at the Sweetwater Guard Station, using two-person bucksaws to remove fallen dead trees.





# WORK

## Nonprofits Help Conserve the Northern Red Desert

In July, the BLM, Wyoming Conservation Corps (WCC), and Wyoming Wilderness Association (WWA) collaborated to support the conservation of the Northern Red Desert. Workers from the organizations placed 113 signs indicating the boundaries of five wilderness study areas, helping to preserve the area's unique features and landscape.

Such partnerships are vital to managing sustainable, working public lands for both current and future generations. "This project has set a wonderful precedent for collaboration between the BLM and nonprofits in reaching shared stewardship goals," said Shaleas Harrison, WWA wild lands community organizer. "It has helped to ensure that the magic of the Red Desert will be there for future generations."

The Northern Red Desert contains an abundance of fossils, artifacts, and famous historical landmarks. The landscape is also important to wildlife, as it is part of the largest overland ungulate migration route and home to one of the largest desert elk herds in North America.

"It is important throughout their summer that WCC members receive diverse experiences in stewardship," said Patrick Harrington, WWC program director. "These experiences help them grow as future employees and allow them to see how complex land management can be in Wyoming."



# ENJOY

## Partners Celebrate Winter Recreation Season

The BLM's Casper Field Office joined with other local organizations to participate in the first ever Casper Mountain Winter Trails Festival, held at the Casper Mountain Trails Center. The festival helped the public discover and understand available winter recreation opportunities and cement relationships among multiple local organizations. The Central Wyoming Trails Alliance, Casper Nordic Club, and Casper Mountain Biathlon Club were all interested in creating an opportunity for the local trails community to come together.

BLM Outdoor Recreation Planner Tammy Owens spoke at the event. Together with a representative from Natrona County Parks, Owens discussed how planning processes work to create new recreation opportunities. She also gave an overview of winter recreation activities on BLM-managed public lands. After the agency presentations, attendees could participate in cross-country skiing, fat biking, and snowshoeing tours.





LEARN



SERVE



WORK



ENJOY





LEARN



SERVE



WORK



ENJOY



